

INTERNATIONAL SEARCH REPORT

Inte ional Application No
PC 1 / EP 2004/011975

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N33/50 C07K16/18 C12N15/11 A61P19/00 A61P37/00
A61P11/00 A61P01/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 384 740 A (DANA FARBER CANCER INSTITUTE) 29 August 1990 (1990-08-29) abstract examples 1-3	1-3
X	-& BUBIEN JAMES K ET AL: "Transfection of the CD20 cell surface molecule into ectopic cell types generates a calcium conductance found constitutively in B lymphocytes" JOURNAL OF CELL BIOLOGY, vol. 121, no. 5, 1993, pages 1121-1132, XP002319729 ISSN: 0021-9525 cited in the application page 1123, right-hand column, paragraph 4 - page 1129, left-hand column, paragraph 1 ----- -/--	1-3

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

2 March 2005

Date of mailing of the international search report

23/03/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Mateo Rosell, A.M.

INTERNATIONAL SEARCH REPORT

International Application No
PC1/EP2004/011975

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ISHIBASHI K ET AL: "Identification of a new multigene four-transmembrane family (MS4A) related to CD20, HTm4 and beta subunit of the high-affinity IgE receptor" GENE, ELSEVIER BIOMEDICAL PRESS. AMSTERDAM, NL, vol. 264, no. 1, 7 February 2001 (2001-02-07), pages 87-93, XP004229777 ISSN: 0378-1119 cited in the application abstract page 92, left-hand column, paragraph 2 - page 93, right-hand column, last paragraph	4,5
X	WO 02/062946 A (DUKE UNIVERSITY; TEDDER, THOMAS, F; LIANG, YING HUA) 15 August 2002 (2002-08-15) pages 1-7; figure 1 page 30, line 18 - page 32, line 10 page 51, line 21 - page 76, line 6; examples 4,8; tables 1-5	1-9,11, 12
X	-& LIANG Y ET AL: "Identification of a CD20-, FcepsilonRIbeta-, and HTm4-Related Gene Family: Sixteen New MS4A Family Members Expressed in Human and Mouse" GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 72, no. 2, 1 March 2001 (2001-03-01), pages 119-127, XP004434123 ISSN: 0888-7543 cited in the application page 123, right-hand column, paragraph 1 - page 124, right-hand column, paragraph 1; figure 3 page 126, left-hand column, paragraph 1 - right-hand column, paragraph 1	1,6-9,11
X	WO 01/59103 A (RIBOZYME PHARMACEUTICALS, INC; BLATT, LAWRENCE; MCSWIGGEN, JAMES; CHOW) 16 August 2001 (2001-08-16) page 5, last paragraph page 6, paragraph 4 page 12, paragraph 3 page 14, paragraphs 2,3 page 15, paragraph 5 page 36, paragraphs 4,5; examples 1-5	6,7,12

-/--

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/011975

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>PINKERT ELKE ET AL: "Effect of rituximab on apoptosis, necrosis and calcium signal transduction of CD20-expressing cell lines" BLOOD, vol. 96, no. 11 Part 1, 16 November 2000 (2000-11-16), page 342a, XP008043753 & 42ND ANNUAL MEETING OF THE AMERICAN SOCIETY OF HEMATOLOGY; SAN FRANCISCO, CALIFORNIA, USA; DECEMBER 01-05, 2000 ISSN: 0006-4971 Abstract #1476 abstract</p> <p>-----</p>	6,7,12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/011975

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Since claims 1-3 do not exclude a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Information on patent family members

International Application No

PCT/EP2004/011975

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0384740	A	29-08-1990	US 4987084 A	22-01-1991
			CA 2010207 A1	21-08-1990
			EP 0384740 A2	29-08-1990
			JP 2284062 A	21-11-1990
WO 02062946	A	15-08-2002	WO 02062946 A2	15-08-2002
WO 0159103	A	16-08-2001	AU 3811101 A	20-08-2001
			CA 2398282 A1	16-08-2001
			EP 1265995 A2	18-12-2002
			JP 2003525037 T	26-08-2003
			WO 0159103 A2	16-08-2001
			US 2003203870 A1	30-10-2003
			US 2003060611 A1	27-03-2003
			US 2003113891 A1	19-06-2003
			US 2003092646 A1	15-05-2003
			AU 4345401 A	17-09-2001
			CA 2400415 A1	13-09-2001
			EP 1263947 A2	11-12-2002
			JP 2003525631 T	02-09-2003
			WO 0166721 A2	13-09-2001
			US 2003065155 A1	03-04-2003
			US 2004009510 A1	15-01-2004
			US 2004161758 A1	19-08-2004
			US 2002102568 A1	01-08-2002
			US 2003008295 A1	09-01-2003